



#3

SEQUENCE LISTING

<110> Schmitz, et al.

<120> ANTIGEN BINDING FRAGMENTS SPECIFIC FOR DENDRITIC CELLS COMPOSITIONS AND METHODS OF USE THEREOF ANTIGENS RECOGNIZED THEREBY AND CELLS OBTAINED THEREBY

<130> 830003-2002.1

<140> 09/714,712

<141> 2000-11-15

<150> 60/165,555

<151> 1999-11-15

<160> 38

<170> PatentIn version 3.0

<210> 1

<211> 1312

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)..(1312)

<223> BDCA-2 cDNA sequence

<400> 1

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ttgaactcct ggctgaagc aatccgcca cctcagcctc ccaaagtgt gagattatag      180
gcacgagcca ctacacctgg ccacaaaatt ctttaaagaa gccaatccca tctcctctca      240
agagccaagg ggccacctca cctccttggt acagcagatc ctgcctccac agtcacctg      300
ctcccaagtg caacctctgt ctgacctgac atgggtgtgcg gtgcctcctt gcctcaggcc      360
gcgaagaagg atctaagggc ttggcttggt tgaaagaacc acaccccgaa agtaacatct      420
ttggagaaag tgatacaaga gcttctgcac ccacctgata gaggaagtcc aaagggtgtg      480
cgcacacaca atggtgcctg aagaagagcc tcaagaccga gagaaaggac tctggtggtt      540
ccagttgaag gtctggtcca tggcagtcgt atccatcttg ctctcagtg tctgtttcac      600
tgtgagttct gtggtgcctc acaattttat gtatagcaaa actgtcaaga ggctgtccaa      660
gttacgagag tatcaacagt atcatccaag cctgacctgc gtcattggaag gaaaggacat      720
agaagattgg agctgctgcc caacccttg gacttcattt cagtctagtt gctactttat      780
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ttctactggg atgcaatctt ggactaagag tcaaaagaac tgttctgtga tgggggctga      840
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ttcttcttat tttctggggc tgtcagatcc aggggggtcgg cgacattggc aatgggttga      960
ccagacacca tacaatgaaa atgtcacatt ctggcactca ggtgaaccca ataaccttga     1020
tgagcgttgt gcgataataa atttccgttc ttcagaagaa tggggctgga atgacattca     1080
ctgtcatgta cctcagaagt caatttgcaa gatgaagaag atctacatat aaatgaaata     1140
ttctccctgg aaatgtgttt gggttggcat ccaccgttgt agaaagctaa attgattttt     1200
taatttatgt gtaagttttg tacaaggaat gccctaaaaa tgtttcagca ggctgtcacc     1260
tattacactt atgatataat ccaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa           1312

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<210> 2
<211> 213
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(213)
<223> amino acid sequence of one of the isoforms of BDCA-2 with all six
      exons expressed

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<400> 2

Met Val Pro Glu Glu Glu Pro Gln Asp Arg Glu Lys Gly Leu Trp Trp
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Phe Gln Leu Lys Val Trp Ser Met Ala Val Val Ser Ile Leu Leu Leu
      20              25              30

Ser Val Cys Phe Thr Val Ser Ser Val Val Pro His Asn Phe Met Tyr
      35              40              45

Ser Lys Thr Val Lys Arg Leu Ser Lys Leu Arg Glu Tyr Gln Gln Tyr
      50              55              60

His Pro Ser Leu Thr Cys Val Met Glu Gly Lys Asp Ile Glu Asp Trp
65              70              75              80

Ser Cys Cys Pro Thr Pro Trp Thr Ser Phe Gln Ser Ser Cys Tyr Phe
      85              90              95

Ile Ser Thr Gly Met Gln Ser Trp Thr Lys Ser Gln Lys Asn Cys Ser
      100             105             110

Val Met Gly Ala Asp Leu Val Val Ile Asn Thr Arg Glu Glu Gln Asp
      115             120             125

```

Phe Ile Ile Gln Asn Leu Lys Arg Asn Ser Ser Tyr Phe Leu Gly Leu
 130 135 140
 Ser Asp Pro Gly Gly Arg Arg His Trp Gln Trp Val Asp Gln Thr Pro
 145 150 155 160
 Tyr Asn Glu Asn Val Thr Phe Trp His Ser Gly Glu Pro Asn Asn Leu
 165 170 175
 Asp Glu Arg Cys Ala Ile Ile Asn Phe Arg Ser Ser Glu Glu Trp Gly
 180 185 190
 Trp Asn Asp Ile His Cys His Val Pro Gln Lys Ser Ile Cys Lys Met
 195 200 205
 Lys Lys Ile Tyr Ile
 210

<210> 3
 <211> 1227
 <212> DNA
 <213> Mus musculus
 <220>
 <221> CDS
 <222> (146)..(775)
 <223> coding sequence of mouse Dectin-2

<300>
 <308> AF240357
 <309> 2000-05-02
 <313> (1)..(1227)

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 gacctttctga acatacacct caaca atg gtg cag gaa aga caa tcc caa ggg 172
 Met Val Gln Glu Arg Gln Ser Gln Gly
 1 5
 aag gga gtc tgc tgg acc ctg aga ctc tgg tca gct gct gtg att tcc 220
 Lys Gly Val Cys Trp Thr Leu Arg Leu Trp Ser Ala Ala Val Ile Ser
 10 15 20 25
 atg tta ctc ttg agt acc tgt ttc att gcg agc tgt gtg gtg act tac 268
 Met Leu Leu Leu Ser Thr Cys Phe Ile Ala Ser Cys Val Val Thr Tyr
 30 35 40
 caa ttt att atg gac cag ccc agt aga aga cta tat gaa ctt cac aca 316
 Gln Phe Ile Met Asp Gln Pro Ser Arg Arg Leu Tyr Glu Leu His Thr
 45 50 55
 tac cat tcc agt ctc acc tgc ttc agt gaa ggg act atg gtg tca gaa 364

Tyr	His	Ser	Ser	Leu	Thr	Cys	Phe	Ser	Glu	Gly	Thr	Met	Val	Ser	Glu		
		60					65					70					
aaa	atg	tgg	gga	tgc	tgc	cca	aat	cac	tgg	aag	tca	ttt	ggc	tcc	agc		412
Lys	Met	Trp	Gly	Cys	Cys	Pro	Asn	His	Trp	Lys	Ser	Phe	Gly	Ser	Ser		
	75					80				85							
tgc	tac	ctc	att	tct	acc	aag	gag	aac	ttc	tgg	agc	acc	agt	gag	cag		460
Cys	Tyr	Leu	Ile	Ser	Thr	Lys	Glu	Asn	Phe	Trp	Ser	Thr	Ser	Glu	Gln		
90					95					100					105		
aac	tgt	gtt	cag	atg	ggg	gct	cat	ctg	gtg	gtg	atc	aat	act	gaa	gcg		508
Asn	Cys	Val	Gln	Met	Gly	Ala	His	Leu	Val	Val	Ile	Asn	Thr	Glu	Ala		
				110					115					120			
gag	cag	aat	ttc	atc	acc	cag	cag	ctg	aat	gag	tca	ctt	tct	tac	ttc		556
Glu	Gln	Asn	Phe	Ile	Thr	Gln	Gln	Leu	Asn	Glu	Ser	Leu	Ser	Tyr	Phe		
			125					130					135				
ctg	ggt	ctt	tcg	gat	cca	caa	ggt	aat	ggc	aaa	tgg	caa	tgg	atc	gat		604
Leu	Gly	Leu	Ser	Asp	Pro	Gln	Gly	Asn	Gly	Lys	Trp	Gln	Trp	Ile	Asp		
	140						145					150					
gat	act	cct	ttc	agt	caa	aat	gtc	agg	ttc	tgg	cac	ccc	cat	gaa	ccc		652
Asp	Thr	Pro	Phe	Ser	Gln	Asn	Val	Arg	Phe	Trp	His	Pro	His	Glu	Pro		
	155					160					165						
aat	ctt	cca	gaa	gag	cgg	tgt	gtt	tca	ata	gtt	tac	tgg	aat	cct	tcg		700
Asn	Leu	Pro	Glu	Glu	Arg	Cys	Val	Ser	Ile	Val	Tyr	Trp	Asn	Pro	Ser		
170					175					180					185		
aaa	tgg	ggc	tgg	aat	gat	gtt	ttc	tgt	gat	agt	aaa	cac	aat	tca	ata		748
Lys	Trp	Gly	Trp	Asn	Asp	Val	Phe	Cys	Asp	Ser	Lys	His	Asn	Ser	Ile		
				190					195					200			
tgt	gaa	atg	aag	aag	att	tac	cta	tga	gtgcctgtta	ttcattaata							795
Cys	Glu	Met	Lys	Lys	Ile	Tyr	Leu										
				205													
tctttaaaagt	tcagacctac	caagaagcca	taacttcttg	gcctgtacat	ctgacagagg												855
ccgttctttt	cctagccact	attctttact	caaacagaat	gagccctttc	tcctttctgat												915
ggttagagtt	ttgtcaactt	gacacaaact	agagtcacct	ggggagtagg	atcttcagct												975
aaggaattgc	ctctgtcagc	ttgaccagtc	agcatgtctg	ggggcatttt	cttgattaat												1035
gattgttgta	agagggtcca	ggtggtaagc	aaagggtgta	aacccatgaa	gagcaagcca												1095
gggagcatca	tccatccatc	tctgccctca	ggtttctgcc	ccagggtctt	gccctggttt												1155
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aaaaaaaaaa	aa																1227

<211> 209
<212> PRT
<213> Mus musculus

<400> 4

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Arg Leu Trp Ser Ala Ala Val Ile Ser Met Leu Leu Leu Ser Thr Cys
20 25 30

Phe Ile Ala Ser Cys Val Val Thr Tyr Gln Phe Ile Met Asp Gln Pro
35 40 45

Ser Arg Arg Leu Tyr Glu Leu His Thr Tyr His Ser Ser Leu Thr Cys
50 55 60

Phe Ser Glu Gly Thr Met Val Ser Glu Lys Met Trp Gly Cys Cys Pro
65 70 75 80

Asn His Trp Lys Ser Phe Gly Ser Ser Cys Tyr Leu Ile Ser Thr Lys
85 90 95

Glu Asn Phe Trp Ser Thr Ser Glu Gln Asn Cys Val Gln Met Gly Ala
100 105 110

His Leu Val Val Ile Asn Thr Glu Ala Glu Gln Asn Phe Ile Thr Gln
115 120 125

Gln Leu Asn Glu Ser Leu Ser Tyr Phe Leu Gly Leu Ser Asp Pro Gln
130 135 140

Gly Asn Gly Lys Trp Gln Trp Ile Asp Asp Thr Pro Phe Ser Gln Asn
145 150 155 160

Val Arg Phe Trp His Pro His Glu Pro Asn Leu Pro Glu Glu Arg Cys
165 170 175

Val Ser Ile Val Tyr Trp Asn Pro Ser Lys Trp Gly Trp Asn Asp Val
180 185 190

Phe Cys Asp Ser Lys His Asn Ser Ile Cys Glu Met Lys Lys Ile Tyr
195 200 205

Leu

<210> 5
<211> 237
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(237)
<223> amino acid sequence of human DCIR

<300>
<308> AJ133532
<309> 1999-09-01
<313> (1)..(237)

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Lys Ser Ser Gly Ile Asn Thr Ala Ser Ser Ala Ala Ser Lys Glu Arg
20 25 30

Thr Ala Pro His Lys Ser Asn Thr Gly Phe Pro Lys Leu Leu Cys Ala
35 40 45

Ser Leu Leu Ile Phe Phe Leu Leu Leu Ala Ile Ser Phe Phe Ile Ala
50 55 60

Phe Val Ile Phe Phe Gln Lys Tyr Ser Gln Leu Leu Glu Lys Lys Thr
65 70 75 80

Thr Lys Glu Leu Val His Thr Thr Leu Glu Cys Val Lys Lys Asn Met
85 90 95

Pro Val Glu Glu Thr Ala Trp Ser Cys Cys Pro Lys Asn Trp Lys Ser
100 105 110

Phe Ser Ser Asn Cys Tyr Phe Ile Ser Thr Glu Ser Ala Ser Trp Gln
115 120 125

Asp Ser Glu Lys Asp Cys Ala Arg Met Glu Ala His Leu Leu Val Ile
130 135 140

Asn Thr Gln Glu Glu Gln Asp Phe Ile Phe Gln Asn Leu Gln Glu Glu
145 150 155 160

Ser Ala Tyr Phe Val Gly Leu Ser Asp Pro Glu Gly Gln Arg His Trp
165 170 175

Gln Trp Val Asp Gln Thr Pro Tyr Asn Glu Ser Ser Thr Phe Trp His

180	185	190
Pro Arg Glu Pro Ser Asp Pro Asn Glu Arg Cys Val Val Leu Asn Phe		
195	200	205
Arg Lys Ser Pro Lys Arg Trp Gly Trp Asn Asp Val Asn Cys Leu Gly		
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Pro Gln Arg Ser Val Cys Glu Met Met Lys Ile His Leu		
225	230	235

<210> 6
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 <213> Artificial

<220>
 <223> basic unit of a linking peptide

<400> 6

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 1 5

<210> 7
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 <212> DNA
 <213> Artificial

<220>
 <223> primer

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24

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 <212> DNA
 <213> Artificial

<220>
 <223> primer

<400> 8
 tagctttcta caacggtgga tgcc

24

<210> 9
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 <213> Homo sapiens

<400> 9

Asn Cys Ser Val
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<210> 10
<211> 4
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<400> 10

Asn Ser Ser Tyr
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<210> 11
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<400> 11

Asn Val Thr Phe
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<210> 12
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<400> 12

Asn Glu Ser Leu
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<211> 4
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<400> 13

Asn Glu Ser Ser
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Lys Lys Thr Thr

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<211> 4

<212> PRT

<213> Homo sapiens

<400> 16

Thr Arg Glu Glu

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Ser Ser Glu Glu

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Ser Thr Lys Glu

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Ser Thr Ser Glu

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<212> PRT

<213> Mus musculus

<400> 20

Thr Glu Ala Glu

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<210> 21

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<213> Mus musculus

<400> 21

Ser Ile Cys Glu
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<212> PRT

<213> Homo sapiens

<400> 22

Thr Tyr Ala Glu
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<212> PRT

<213> Homo sapiens

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Thr Thr Lys Glu
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<211> 4

<212> PRT

<213> Homo sapiens

<400> 24

Thr Thr Leu Glu
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<210> 25

<211> 4

<212> PRT

<213> Homo sapiens

<400> 25

Ser Trp Gln Asp
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<210> 26

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<212> PRT

<213> Homo sapiens

<400> 26

Ser Glu Lys Asp
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<210> 27
<211> 4
<212> PRT
<213> Homo sapiens

<400> 27

Thr Gln Glu Glu
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<210> 28
<211> 8
<212> PRT
<213> Homo sapiens

<220>
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<222> (1)..(8)
<223> Tyrosine kinase phosphorylation site in human BDCA-2

<400> 28

Lys Leu Arg Glu Tyr Gln Gln Tyr
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<210> 29
<211> 4
<212> PRT
<213> Homo sapiens

<400> 29

Ser Val Cys Glu
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<210> 30
<211> 4
<212> PRT
<213> Homo sapiens

<400> 30

Ser Val Cys Glu
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<210> 31
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<213> Mus musculus

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<221> UNSURE
<222> (1)..(9)
<223> Tyrosine kinase phosphorylation site in mouse dectin-2

<400> 31

Arg Arg Leu Tyr Glu Leu His Thr Tyr
1 5

<210> 32

<211> 4

<212> PRT

<213> Homo sapiens

<400> 32

Gly Gly Arg Arg
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<210> 33

<211> 6

<212> PRT

<213> Mus musculus

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in mouse dectin-2

<400> 33

Gly Val Cys Trp Thr Leu
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<210> 34

<211> 6

<212> PRT

<213> Mus musculus

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in mouse dectin-2

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Gly Thr Met Val Ser Glu
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<210> 35

<211> 6

<212> PRT

<213> Mus musculus

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in mouse dectin-2

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<210> 36

<211> 6

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(6)

<223> N-myristylation site in human DCIR

<400> 36

Gly Ile Asn Thr Ala Ser
1 5

<210> 37

<211> 6

<212> PRT

<213> Unknown

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<223> consensus ITIM motif

<220>

<221> misc_feature

<222> (2)..(5)

<223> consensus immunoreceptor tyrosine-based inhibitory motif
(ITIM motif) (I/V)XYXX(L/V),
amino acid "X" from position 2, 4 and 5 can be any amino acid

<220>

<221> misc_feature

<222> (1)..(1)

<223> amino acid "X" at position 1 can be either amino acid "I " or "V"

<220>

<221> misc_feature

<222> (6)..(6)

<223> amino acid "X" at position 6 can be either amino acid "L " or "V"

<400> 37

Xaa Xaa Tyr Xaa Xaa Xaa
1 5

<210> 38

<211> 6

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(6)

<223> immunoreceptor tyrosine-based inhibitory motif (ITIM motif) in
DCIR

<400> 38

Ile Thr Tyr Ala Glu Val

1

5